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Hawley's

Condensed Chemical

Dictionary

TWELFTH EDITION

Revised by

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T

T. Symbol for tritium, also for tera-.

2,4,5-T. Abbreviation for 2,4,5-trichlorophenoxyacetic acid.

2,4,6-T. Abbreviation for 2,4,6-trichlorophenol.

Ta. Symbol for tantalum.

tabun. (dimethylphosphoramidocyanidic acid, ethyl ester). CAS: 77-81-6.

(CH_3)₂NP(O)(C₂H₅O)(CN). A nerve gas.

Properties: Liquid, fp -50°C, bp 240°C, flash p 172°F (77.7°C), d 1.4250 (20/4°C), readily soluble in organic solvents, miscible with water but readily hydrolyzed; destroyed by bleaching powder, generating cyanogen chloride. Combustible.

Hazard: Very toxic by inhalation, cholinesterase inhibitor, a military nerve gas, fatal dose (man) 0.01 mg/kg.

"TAC" [Mallinckrodt]. TM for tested additive chemical items, satisfactory for food additives and medical uses.

tachysterol. CAS: 115-61-7. C₂₈H₄₄O.

Properties: Oil, levorotatory, insoluble in water, soluble in most organic solvents, protect from air.

Use: Medicine, as the dihydrotachysterol.

tackifiers. Refers to compounds used for making an adhesive stickier.

tackiness. (tack). Property of being sticky or adhesive.

taconite. A low-grade iron ore consisting essentially of a mixture of hematite and silica. It contains 25% iron. Found in the Lake Superior district and western states.

tacticity. The regularity or symmetry in the molecular arrangement or structure of a polymer molecule. Contrasts with random positioning of substituent groups along the polymer backbone, or random position with respect to one another of successive atoms in the backbone chain of a polymer molecule.

See polymer, stereospecific, isotactic.

Tafel rearrangement. Rearrangement of the carbon skeleton of substituted acetoacetic esters to hydrocarbons with the same number of carbon

atoms by electrolytic reduction at a lead cathode in alcoholic sulfuric acid.

Tag Closed Cup. See TCC.

tagetes. A permissible food additive used to increase the yellow color of the skin and eggs of poultry. It is made from the petals of the Aztec marigold (*Tagetes erecta L.*), either ground to a meal or extracted with hexane, with addition of up to 0.3% ethoxyquin.

tagged atom. A radioactive isotope used in tracing the behavior of a substance in both biochemical and engineering research, e.g., C-14 or I-131. See tracer, label (2).

Tag Open Cup. See TOC.

tailings. (1) In flour-milling, the product left after grinding and bolting middlings. (2) Impurities remaining after the extraction of useful minerals from an ore. (3) In general, any residue from a mechanical refining or separation process.

tailored molecule. A molecule that has been modified chemically to give it certain properties.

tails. Refers to high-boiling impurities that are less volatile than the solvent being distilled.

talc. (talcum; soapstone; steatite). CAS: 14807-96-6.

Mg₃Si₄O₁₀(OH)₂ or 3MgO•4SiO₂•H₂O. A natural hydrous magnesium silicate. Compact, massive varieties may be called steatite in distinction from the foliated varieties, which are called talc. Soapstone is an impure variety of steatite.

Properties: White, apple-green, or gray powder; luster pearly or greasy, feel greasy, Mohs hardness 1-1.5 (may be harder when impure), high resistance to acids, alkalies, and heat; d 2.7-2.8. Grade: Crude, washed, air-floated, USP, fibrous (99.5%, 99.95%).

Hazard: Toxic by inhalation. TLV: soapstone: 6 mg/m³; respirable dust 3 mg/m³ in air; talc containing no asbestos: 2 mg/m³ respirable dust in air.

Use: Ceramics; cosmetics and pharmaceuticals; filler in rubber, paints, soap, putty, plaster, oil-cloth; abherent; dusting agent; lubricant; paper; slate pencils and crayons; electrical insulation.

See also magnesium silicate.